



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-3659; Directorate Identifier 2014-SW-050-AD;**

**Amendment 39-18409; AD 2016-04-15]**

**RIN 2120-AA64**

**Airworthiness Directives; MD Helicopters Inc., Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for MD Helicopters, Inc. (MDHI), Model 369A, 369D, 369E, 369FF, 369HE, 369HM, 369HS, 500N, and 600N helicopters with a certain part-numbered main rotor blade attach pin (pin) installed. This AD requires ensuring the life limit of the pin as listed in the Airworthiness Limitations section of aircraft maintenance records and Instructions for Continued Airworthiness (ICA). If the hours time-in-service (TIS) of a pin is unknown, or if a pin has exceeded its life limit, this AD requires removing the affected pin from service. This AD was prompted by a report from an operator who purchased pins that did not have life limit documentation. These actions are intended to document the life limit to prevent a pin remaining in service beyond its fatigue life, which could result in failure of a pin, failure of a main rotor blade, and subsequent loss of control of the helicopter.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Aerometals, 3920 Sandstone Dr., El Dorado Hills, CA 95762, telephone (916) 939-6888, fax (916) 939-6555, [www.aerometals.aero](http://www.aerometals.aero). You may review a copy of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3659; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Galib Abumeri, Aviation Safety Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5324; email [Galib.Abumeri@faa.gov](mailto:Galib.Abumeri@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

On September 2, 2015, at 80 FR 53028, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to MDHI Model 369A, 369D, 369E, 369FF, 369HE, 369HM,

369HS, 500N, and 600N helicopters with a pin part-number (P/N) 369X1004-5 installed. The NPRM proposed to require determining the number of hours TIS of each pin and whether the aircraft maintenance records contain a pin life limit. If the hours TIS are unknown, NPRM proposed to require removing the pin from service. If the aircraft maintenance records do not contain a pin life limit, the NPRM proposed to require revising the records and establishing a life limit of 5,760 hours if the pin is installed on a Model 369A, 369HE, 369HM, or 369HS helicopter, or 7,600 hours if the pin is installed on a Model 369D, 369E, 369FF, 500N, or 600N helicopter. The NPRM also proposed to require revising the records to add a statement that if a pin is interchanged between different model helicopters, then its life limit must be restricted to the lower life limit even if it was originally installed on a helicopter model with a higher life limit. Lastly, the NPRM proposed to prohibit installing a pin on any helicopter before these proposed requirements have been accomplished.

Aerometals produces pin P/N 369X1004-5 under a parts manufacturer approval as a replacement pin for MDHI P/N 369A1004-5. The NPRM was prompted by a report from an operator who purchased Aerometals' pins P/N 369X1004-5 without life limit documentation. The FAA inadvertently approved the pins without a life limit in the Airworthiness Limitations section and without a restriction for parts that are interchanged between models with different life limits. A total of 5,133 affected pins were sold by Aerometals without any indication that the parts were life-limited. The proposed requirements were intended to correct the failure of these parts to have a documented life

limit to prevent a pin remaining in service beyond its fatigue life, which could result in failure of a pin, failure of a main rotor blade, and subsequent loss of control of the helicopter.

### **Comments**

After our NPRM (80 FR 53028, September 2, 2015) was published, we received a comment from one commenter supporting the NPRM.

### **FAA's Determination**

We have reviewed the relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

### **Related Service Information**

Aerometals has issued Aero-ICA-1001 Supplemental Instructions for Continued Airworthiness, Revision NC, dated May 22, 2014, and Service Bulletin Aero-SB-1103, dated July 2, 2014. The service bulletin specifies determining whether the helicopter has pins P/N 369X1004-5 installed and then reviewing the aircraft maintenance records to determine if the pins have a life limit identified. If the life limit is not the same as that listed in the ICA, the service bulletin specifies revising the life limit in the maintenance records. The service bulletin states that the pins were approved by the FAA as parts manufacturer approval direct replacement parts with the same life limits as the parts they replace. However, they were sold without an FAA-approved supplemental ICA containing an Airworthiness Limitations Section specifically assigning these life limits to the pins.

## **Costs of Compliance**

We estimate that this AD will affect 118 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour. We estimate 1/2 work-hour to inspect and record any update for a total of \$42.50 per helicopter and \$5,015 for the U.S. fleet. If required, we estimate 1 work-hour per helicopter to replace 10 pins because each blade has 2 pins and each helicopter has 5 blades. Required parts are \$445 for each pin. Based on these estimates, it will cost \$4,535 per helicopter to replace 10 pins if the pins have exceeded their life limit.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866;
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2016-04-15 **MD Helicopters Inc.:** Amendment 39-18409; Docket No. FAA-2015-3659; Directorate Identifier 2014-SW-050-AD.

#### **(a) Applicability**

This AD applies to Model 369A, 369D, 369E, 369FF, 369HE, 369HM, 369HS, 500N, and 600N helicopters with an Aerometals main rotor blade attach pin (pin) part number (P/N) 369X1004-5 installed, certificated in any category.

#### **(b) Unsafe Condition**

This AD defines the unsafe condition as a pin remaining in service beyond its fatigue life. This condition could result in failure of a pin, loss of a main rotor blade, and subsequent loss of control of the helicopter.

#### **(c) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

#### **(e) Required Actions**

(1) Within 100 hours time-in-service (TIS) or during the next annual inspection, whichever occurs first:

(i) Review the maintenance records and determine the hours TIS of each pin

P/N 369X1004-5 and whether there is a pin life limit listed in the Airworthiness Limitations Section of the applicable maintenance manual or Instructions for Continued Airworthiness (ICA). If the hours TIS on a pin is unknown, remove the pin from service.

(ii) For Model 369A, 369HE, 369HM, and 369HS helicopters, if there is no pin life limit, establish a new life limit of 5,760 hours TIS for each pin P/N 369X1004-5 by making pen-and-ink changes or by inserting a copy of this AD into the Airworthiness Limitations Section of the maintenance manual or the ICA. Remove from service any pin that has 5,760 or more hours TIS.

(iii) For Model 369D, 369E, 369FF, 500N, and 600N helicopters, if there is no pin life limit, establish a new life limit of 7,600 hours TIS for each pin P/N 369X1004-5 by making pen-and-ink changes or by inserting a copy of this AD into the Airworthiness Limitations Section of the maintenance manual or the ICA. Remove from service any pin that has 7,600 or more hours TIS.

(iv) For all model helicopters, add the following statement to the Airworthiness Limitations Section of the maintenance manual or the ICA by making pen-and-ink changes or by inserting a copy of this AD: If interchanged between different model helicopters, the life limit of pin P/N 369X1004-5 must be restricted to the lowest life limit indicated for the helicopter models and serial numbers affected.

(2) Do not install a pin P/N 369X1004-5 on any helicopter before the requirements of this AD have been accomplished.

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Los Angeles Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Galib Abumeri, Aviation Safety Engineer,



Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5324 or email at 9-ANM-LAACO-AMOC-REQUESTS@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(g) Additional Information**

Aerometals Service Bulletin Aero-SB-1103, dated July 2, 2014, and Aerometals Aero-ICA-101 Supplemental Instructions for Continued Airworthiness, Revision NC, dated May 22, 2014, which are not incorporated by reference, contain additional information about the subject of this final rule. For service information identified in this final rule, contact Aerometals, 3920 Sandstone Dr., El Dorado Hills, CA 95762, telephone (916) 939-6888, fax (916) 939-6555, [www.aerometals.aero](http://www.aerometals.aero). You may review a copy of this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6210 Main Rotor Blades.

Issued in Fort Worth, Texas, on February 17, 2016.

Lance T. Gant,

Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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